Electronic Supplementary Material (ESI) for Biomaterials Science.

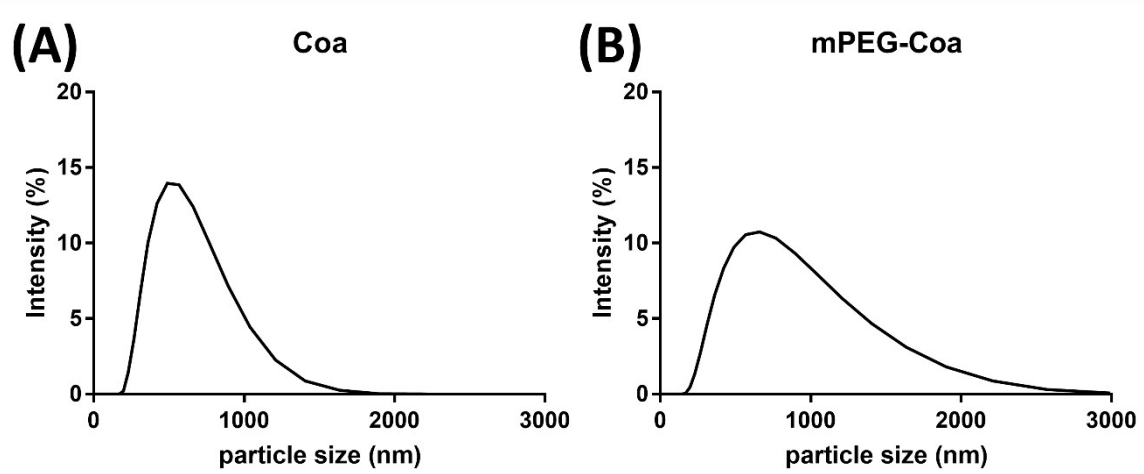

Fig. S1. Particle size of IL-15 loaded Coa and mPEG-Coa measured by DLS. Average size of (A) Coa and (B) mPEG-Coa is 524.44 ±11.14 and 765.63 ± 15.56 nm, respectively.

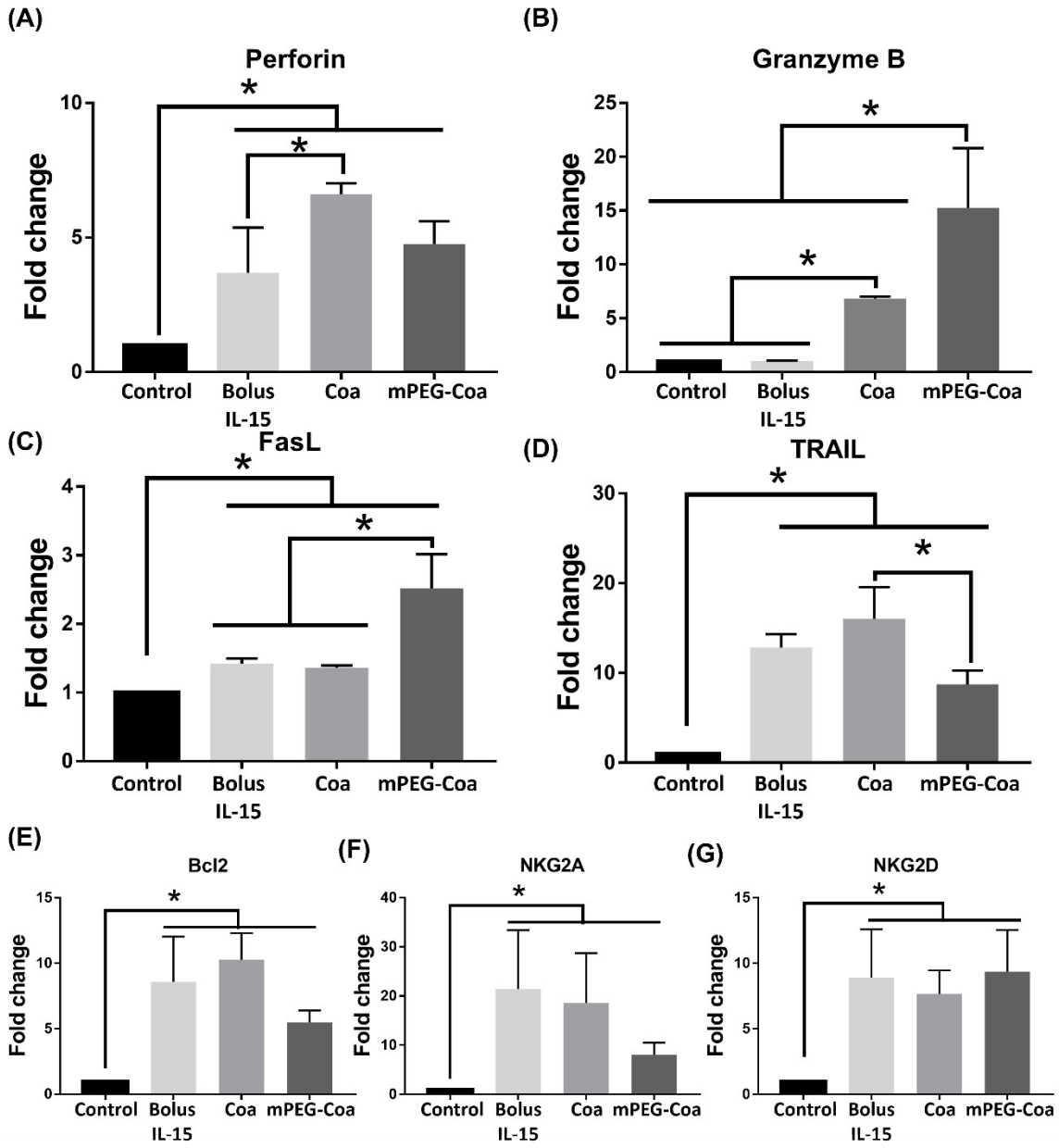

Fig. S2. mRNA expression of long-term IL-15 (1 ng/10000 cells) primed NK-92mi cell for 2 days. mRNA expression of (A) perforin and (B) granzyme B belonging to cytotoxic granules, mRNA expression of (C) FasL and (D) TRAIL belonging to death ligands, (E) anti-apoptosis protein Bcl2, and (F) inhibitory receptor NKG2A and (G) activation receptor NKG2D were measured. Primed NK-92mi cell groups with (Bolus IL-15, Coa, and mPEG-Coa) observed the enhanced marker gene expression than control. Except Granzyme B and FasL, there was no statistical difference in mRNA expression between the Bolus IL-15 group and the mPEG-Coa group. * indicate significant difference ($p < 0.05$)

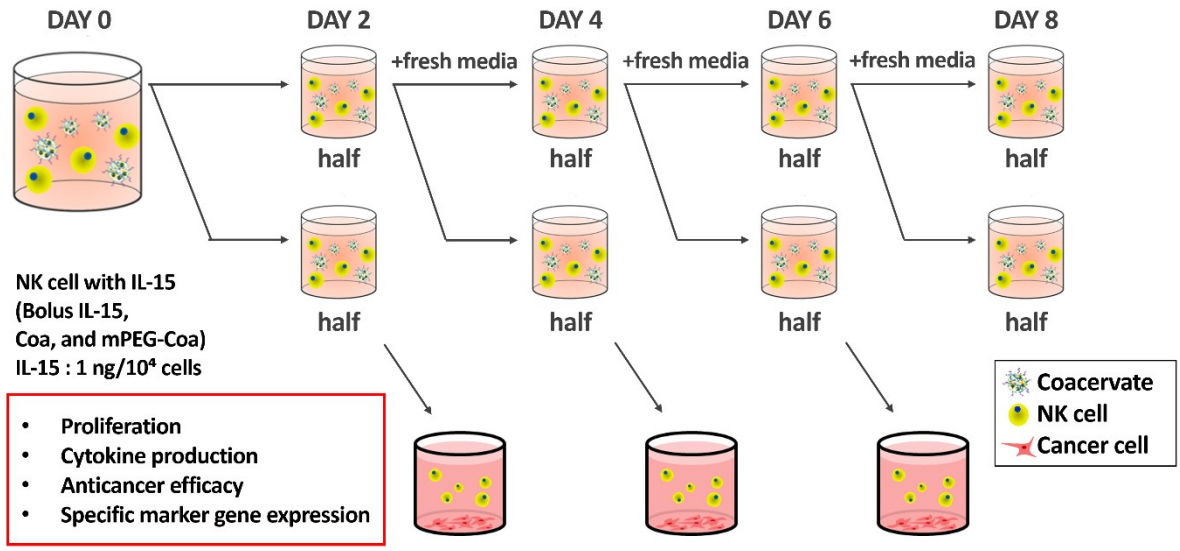

Fig. S3. Graphical illustration of long-term priming strategies through delivery of IL-15 using Coa and mPEG-Coa. Every 2 days, half of cell suspension were cultured, and other half were used in the experiment. culture group added fresh media and the group used in the experiment was used to measure proliferation, cytokine production, anticancer efficacy, specific marker gene expression in NK cells.